

S/081/62/000/023/051/120
B124/B101

AUTHOR: Bystričský, Ladislav

TITLE: Protective coating for aluminum

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 410, abstract
231328 (Stavba, v. 9, no. 4, 1962, 112-113 [Slovak])

TEXT: The technology of applying a protective coating to Al structures exposed to the action of rain is described. A coating consisting of a 27-30% solution of a methacrylate varnish in an organic solvent, which should be applied in four layers with intermediate drying for 3 hours, is shown to be most effective. The surface to be treated should be previously carefully degreased. [Abstracter's note: Complete translation.]

Card 1/1

NIKOLAYEV, N.I.; GELLER, N.M.; DOLGOPLOSK, B.A.; ZGONNIK, V.N.; KROFACHEV, V.A.

Polymerization of isoprene and butadiene under the effect of insoluble organolithium compounds. Vysekem.sed. 5 no.6:811-815 Je '63.

(MIRA 16:9)

1. Institut vysekomolekulyarnykh soyedineniy AN SSSR.
(Butadiene) (Polymerization) (lithium organic compounds)

L 18021-63

ENP(j)/EPP(c)/HWT(n)/BDS ASD Pc-L/Pr-L EM/WN/MAY

ACCESSION NR: AF3003788

S/0190/63/005/007/0994/0996

AUTHORS: Kropachev, V. A.; Alferova, L. V.; Dolgoplosk, B. A.

TITLE: Polymerization of 3,3'-bis-(chloromethyl)oxacyclobutane in polar solvents

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 5, no. 7, 1963, 994-996

TOPIC TAGS: polymerization, polar solvent, polymerization kinetics, ethyl chloride

ABSTRACT: In view of the ionic character of the polymerization process the authors investigated the effect of polar solvents on the polymerization kinetics and the molecular weight of the polymer derived from 3,3'-bis-(chloromethyl)oxacyclobutane (CMOAB), using as catalyst a 25% solution of triethylaluminum in xylene. The experiments were conducted in 50 ml ampules into which the catalyst and the CMOAB monomer were introduced, followed after 3-5 minutes at 20C by either phenyl chloride or ethyl chloride as solvents, after which the ampule was placed in a thermostat at 50-100C for a period of 10-120 min. When phenyl chloride was used the kinetics of the process were determined dilatometrically because of the solubility of the polymer therein, while the yield of the polymer was used to

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L 18021-63

ACCESSION NR: AP3003188

measure the kinetics in the ethyl chloride medium. It was found that in the ethyl chloride medium the polymerization rate depended directly on the amount of the catalyst, with an optimum yield of 85-95% at 0.3-0.5% of triethylaluminum, while the polymer's viscosity was adversely affected by higher concentrations of the catalyst. The observation was also made that the polymerization rate was much enhanced by allowing the CNDAB monomer to interact with the catalyst for 3-5 min preceding the addition of ethyl chloride. Phenyl chloride was found unsatisfactory, due to solidification of the obtained polymer. Ethyl chloride proved superior as a solvent to toluene in both the reaction rate and the viscosity of the obtained polymer. Orig. art. has: 3 charts.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy AN SSSR (Institute of High-polymer Compounds, Academy of Sciences, USSR)

SUBMITTED: 11Dec61

DATE ACQ: 08Aug63

ENCL: 00

SUB CODE: OH

NO REF NOV: 001

OTHER: 000

Card 2/2

DOLGOPLOSK, B.A.

Reply to the remarks in the article by S.V. Pasyukovich
"Reactions of organoaluminum compounds with alkyl halides."
Vysokom. soed. 5 no.10:1587 O '63. (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR.

DOLGOPOLSK, B. [Dolhoplosk , B.]

Let's surpass the natural materials. Nauka i zhyttia 12 no.3:9
M. '63. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR.

L 11424-53

EFB/EWP(j)/EPF(c)/EWI(m)/HDS AFPTC/ASD Ps-4/Pc-4/Pr-4 RM/KW
S/030/63/000/004/002/003

AUTHOR: Dolgoplosk, B. A.

TITLE: Problem of synthesizing rubber

PERIODICAL: Vestnik Ak. nauk SSSR, no. 4, 1963, 9-21

TEXT: Production of rubber in the chief industrial nations from 1950-1961 is summarized (given in thousands of tons). Data are given both for synthetic and natural rubber. Discussing the initial uses of synthetic rubber, the author notes the unsolved problems developing from the current demand for new qualities. The problem of synthesizing highly elastic general purposes rubber is discussed. The structure of natural rubber and of gutta-percha is explained. In the example of butadiene polymers, changes in the material's properties as a function of microstructure are noted. The vitrification points of polybutadiene are given. The author further notes the importance of using very pure initial monomers for the synthesis, since even very small admixtures of other materials have a great effect on the microstructure of the bond. The production processes and the qualities of various Soviet rubber types are

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1. 11424-63

S/030/63/000/004/002/003

Production of rubber...

listed, including types: SKI, SKD, SKS30A, SKB. Judging by the qualities of SKD, it is evident that there is a likelihood of deriving rubber that surpasses natural rubber in a number of respects. Advances made in recent years in synthesizing highly elastic rubbers based on use of a cheap raw material (ethylene and propylene) are described. In formulating the problem for synthesizing rubber capable of withstanding temperatures above 250-300 degrees for a prolonged period, most promising is the synthesis of elementary-organic and inorganic polymers. The author states that the problem of synthesizing rubber capable of enduring temperatures over 300 degrees under various conditions is still unsolved. The research underway in many countries for such a material arises from the need for satisfying the demands of modern technology. The problem of developing highly heat-resistant rubber is linked with the specific problems of achieving stabilization at high temperatures.

ja/CA

Card 2/2

S/020/63/149/003/018/028
B192/B102

AUTHORS: Bresler, L. S., Corresponding Member AS USSR, Dolgoplosk,
B. I., Kropacheva, Ye. N.

TITLE: Investigation of copolymerization of butadiene with isoprene
in the presence of various ion catalyzers

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 3, 1963, 595-598

TEXT: The copolymerization of butadiene with isoprene in the presence of catalyzers of organometallic complexes $[Al(iso-C_4H_9)_3 + TiCl_4$ and $Al(iso-C_4H_9)_2Cl +$ alcoholic complex of $CoCl_2]$ was compared with the copolymerization in the presence of anion catalyzers $[LiC_4H_9 + (CH_2)_4O$ and $LiC_4H_9 + N(C_2H_5)_3]$ or of cation catalyzers $[Al(C_2H_5)Cl_2 + HCl]$. For copolymers formed under the effect of anion catalyzers the measurements showed an enrichment of butadiene as compared with the initial mixing proportion of the monomers. For copolymers formed with cation catalyzers they showed an enrichment of isoprene. If, however, organometallic catalyzers were used the composition of the copolymers was near the initial mixing proportion.

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Investigation of copolymerisation of ...

S/020/63/149/003/018/028
B192/E102

of the monomers. The copolymerization constant of butadiene, r_1 , and of isoprene, r_2 , was calculated. $r_1 < r_2$ followed for the catalyzer of the cation type, $r_1 > r_2$ for that of the anion type. In case of organometallic catalyzers the polymerization process proceeds in a substantially different way. Here is $r_1 \approx r_2 \approx 1$. This means that the linkage constant for a given terminal link is equal for both monomers ($r_1 = 1 = K_{11}/K_{12}$; $r_2 = 1 = K_{22}/K_{21}$). The rate of linkage is therefore not determined by the nature of the monomer but mainly by the nature of the active terminal link of the chain. The influence of the chosen catalyzer on the microstructure of copolymers was investigated and is discussed. There are 3 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubbers, imeni S. V. Lebedev)

SUBMITTED: December 24, 1962

Card 2/2

L-11294-63
 Ps-4/Pc-4/Pr-4/Pt-4--RM/WH/MAY
 ACCESSION NR: AP3001404

S/0020/63/150/004/0813/0815

AUTHOR: Dolgoplosk, S. B.; Klebanskiy, A. L.; Fomina, L. P.; Fikhtengol'ts, Shvarts, S. Yu.

82

TITLE: Siloxane polymers with phenylene groups in the backbone

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 813-815 1963.

TOPIC TAGS: siloxane polymers, phenylene groups, tetramethyldisiloxane, 1-dimethylsilyl-4-dimethylsiloxyphenylene, elasticity, x-ray patterns, thermo-mechanical curves, glass transition temperature

ABSTRACT: Research has been undertaken with the object of improving the heat resistance and resistance to irradiation of siloxane polymers and the physical and mechanical properties of vulcanizates. The authors synthesized a number of new rubberlike siloxane polymers of high molecular weight (intrinsic viscosity in benzene, 1.2 to 1.9), with phenylene groups in the backbone and various aromatic groups and substituents at the Si atom. In one of the compounds, the $\text{CH}_2\text{CH}_2\text{CF}_3$ group is used as a substituent. The effect of phenylene groups on the properties of siloxane polymers was studied on copolymers containing,

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ACCESSION NR: AP3001404

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together with tetramethyldisiloxane $[(CH_3)_2SiOSi(CH_3)_2O]_n$ (A), 50 to 100 mol% 1-dimethylsilyl-4-dimethylsiloxy phenylene $[Si(CH_3)_2C_6H_4Si(CH_3)_2O]$ (B) groups. Copolymers containing 70 mol% of the B groups (I) have a limited elasticity at room temperature; those containing 60 and 50 mol% B group (II) are rubberlike. X-ray patterns and thermomechanical curves indicate that the homopolymer B_n is crystalline, that the crystalline phase is still present in I, and that II is fully amorphous. The glass-transition temperature of the copolymers is a linear function of B-group content: it drops from -2°C for B_n to -123°C for A_n. This article was presented by Academician S. S. Medvedev on 19 October 1962. Orig. art. has: 4 figures, 5 formulas, and 1 table.

ASSOCIATION: none

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: CH

NO REF SOV: 002

OTHER: 004

Card

ellm/2/2

L 15461-63

EPR/EWP(j)/SPF(c)/EWT(m)/BD3

AFITC/ASD

Ps-4/Pc-4/Pr-4

RM/WW

ACCESSION NR: AP3005443

S/0020/63/151/005/1118/1119

AUTHORS: Turov, B. S.; Vinogradov, P. A.; Dolgoplosk, B. A. (Corr. Member AS, SSSR); Kostina, S. I. 73

TITLE: Influence of electron donor additives on the chain structure in stereospecific polymerization of butadiene

SOURCE: AN SSSR. Doklady, v. 151, no. 5, 1963, 1118-1119

TOPIC TAGS: electron donor, butadiene polymerization, stereospecific polymerization, cis-polybutadiene, trans-polybutadiene

ABSTRACT: The effect of thio-ethers and tertiary amines (dibutyl sulfide and triethylamine) on butadiene polymerization was studied as a continuation of earlier study by the authors (DAN, 146, 1141 (1962)) of the effect of straight ethers. These compounds had less effect on polymerization rate than the straight ethers. They did effect an increase in the amount of 1,4-trans isomer by decreasing the 1,4-cis-polybutadiene. There was no lowering of solubility or unsaturation in the polymer formed. Experiment shows the cis-polybutadiene does not

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L 15461-63

ACCESSION NR: AP3005443

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undergo changes in presence of donor additives and components of the catalyst system $TiI_4 + (iso-C_4H_9)_3Al$. Trans-members are formed only in the polymerization process by the direct participation of complexes containing the electron-donor additives. Orig. art. has: 1 figure.

ASSOCIATION: Yaroslavskiy zavod sinteticheskogo kauchuka
(Yaroslav synthetic rubber plant)

SUBMITTED: 07May63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: MA, CH

NO REF SOV: 003

OTHER: 003

Card 2/2

L 18900-63
RM/WW/MAY

EPR/ENF(j)/EPF(c)/ENT(m)/BDS ASD/ESU-3 Ps-4/Pc-4/Pr-4

ACCESSION NR: AP3006591

S/0020/63/151/006/1322/1325 80 78

AUTHORS: Bresler, L. S. (Corr. member AN SSSR); Dolgoplosk, B. A.; Kropacheva, Ye. N.; Nel'son, K. V.; Nikitina, A. P.

TITLE: study of copolymerization process of butadiene-1,3 with 2,3-dimethylbutadiene-1,3 in the presence of various catalysts of the ionic type.

SOURCE: AN SSSR. Doklady*, v.151, no. 6, 1963, 1322-1325

TOPIC TAGS: butadiene, synthetic rubber copolymerization, lithium, 2,3-dimethylbutadiene, butyllithium, HCl, C sup 14, Al, tetrahydrofuran, IR, absorption spectrum, 2,3-dimethylbutadiene, aluminum, Li

ABSTRACT: The relative activities of 2,3-dimethylbutadiene and butadiene during its copolymerization in the presence of anionic type catalysts such as butyllithium complex with tetrahydrofuran, cationic type catalysts such as aluminum ethyldichloride in the presence of hydrochloric acid, and complex organo-metallic catalysts was studied. The microstructures of the polymers obtained by the above systems

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L 18900-63

ACCESSION NR: AP3006591

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were also studied. Butadiene tagged with carbon C^{14} was used to study the composition of copolymer. The non-radioactive polymeric microstructures were investigated by IR absorption spectra using NaCl prism. The vitrification temperature of the polymerized product mixture of butadiene and 2,3-dimethylbutadiene under the influence of catalysts decreases with an increase in its butadiene ratio. This points to the formation of true copolymers and not homopolymers. It was found that 2,3-dimethylbutadiene is more active in the cationic polymerization mechanism and butadiene is more active in the anionic type polymerization. Copolymers formed in the presence of complex catalysts are enriched in butadiene as compared to the initial monomeric mixture. The relative activity of 2,3-dimethylbutadiene is slightly lower than the activity of isoprene. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva, (Scientific research institute for synthetic rubber)

Card 2/02

TINYAKOVA, Ye.I.; DOLGOPLOSK, B.A.; VYDRINA, T.E.; ALFEFOV, A.V.

Cation activity of the components in a "cobalt" system and the nature of the end groups in a polymeric chain. Dokl. AN SSSR 152 no.6:1376-1378 O '63. (MIRA 16:11)

1. Institut neftekhimicheskogo sinteza AN SSSR. 2. Chlen-korrespondent AN SSSR (for Dolgoplosk).

ACCESSION NR: AP4012970

S/0020/64/154/004/0857/0860

AUTHORS: Dolgoplosk, B.A. (Corresponding member); Tinyakova, Ye. I.

TITLE: Certain principles of the ionic polymerization process

SOURCE: AN SSSR. Doklady*, v. 154, no. 4, 1964, 857-860

TOPIC TAGS: ionic polymerization, cationic polymerization, coordination ionic polymerization, radical polymerization, polymerization rate, polymerization inhibition, isobutylene propylene system, 2,3-dimethylbutadiene inhibition polymerization, stereospecific butadiene polymerization, conjugated diene olefin system, cyclopentadiene inhibition polymerization

ABSTRACT: The relationship that the reactivity of the monomer increases with decreasing reactivity of the radical and the rate of homopolymerization or chain growth is discussed. It is applicable to ionic and coordination-ionic systems as well as to radical polymerization. Various examples are cited to support the conclusion that small amounts of a more active monomer have an inhibiting

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ACCESSION NR: AP4012970

effect on the cationic polymerization process: small amounts of isobutylene or vinylalkylethers inhibit polymerization of less active monomers such as propylene, butadiene, or styrene; 2,3-dimethylbutadiene retards polymerization of butadiene; ethylene "regulates" the stereospecific polymerization of butadiene in a Co catalyzed system, lowering the molecular weight of the polybutadiene; in mixtures of conjugated dienes with ethylene or α -olefins, the more active diene retards polymerization of the olefin; in the $R_3Al + TiCl_4$ system, which is effective in homopolymerization of dienes and of cyclopentadienes, addition of a small amount (0.01%) of cyclopentadiene inhibits polymerization of butadiene. Orig. art. has: 1 figure and 5 sets of formulae.

ASSOCIATION: Institut neftekhimicheskogo sinteza, Akademii nauk SSSR (Institute of Petrochemical Synthesis, Academy of Sciences SSSR)

SUBMITTED: 16Oct63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 009

OTHER: 005

Card 2/2

ACCESSION NR: AP4030787

S/0020/64/155/004/0874/0875

AUTHOR: Turov, B. S.; Vinogradov, P. A.; Dolgoplosk, B. A. (Corresponding member); Kostina, S. I.; Kastorskiy, L. P.

TITLE: Effect of electron donor additives on the microstructure of the chain by stereospecific polymerization of butadiene in the presence of "cobaltic" catalytic systems.

SOURCE: AN SSSR. Doklady*, v. 155, no. 4, 1964, 874-875

TOPIC TAGS: butadiene, polymerization, polybutadiene, electron donor additive, chain microstructure, cobaltic catalyst system, stereospecific polymerization, dialkylsulfide, simple ether, tertiary amine, cobalt chloride ethanol complex, diisobutylaluminum chloride, polymerization rate, molecular weight

ABSTRACT: The effect of dialkylsulfides, simple ethers and tertiary amines on the microstructure of the chain formed by polymerizing butadiene in a catalytic system consisting of the $\text{CoCl}_2\text{-C}_2\text{H}_5\text{OH}$ complex and diisobutylaluminum chloride dissolved in a hydrocarbon was investigated. Experiments were run in benzene at 30C using 0.01 wt.% (based on monomer) of the CoCl_2 -catalyst. Microstructure

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ACCESSION NR: AP4030787

was determined quantitatively from IR spectra at 912 and 966 cm^{-1} . Introduction of dialkylsulfides into the polymerization system changes the structure of the polybutadiene: the 1,4-cis units decrease as the 1,2-units increase, while the amount of 1,4-trans linkages remains constant. Simple ethers and tertiary amines have a similar effect on the microstructure of the polybutadiene. All these additives in even small amounts (above 0.1 mol/mol of diisobutylaluminum chloride) rapidly decrease the rate of polymerization. The electron donors lower the molecular weight of the polymers. Thus, there is agreement between the change in the chain microstructure and the molecular weight of the polymer. Orig. art. has: 2 figures.

ASSOCIATION: None /

SUBMITTED: 19Nov63

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: 00

NO REF SOV: 006

OTHER: 004

Card 2/2

BRESLER, I.S.; DOLGOPLOSK, L.A.; KHOPACHEVA, Ye.N.

Polymerization of cis- and trans-piperylene under the effect
of catalytic coordination systems. Dokl. AN SSSR 155 no. 5:
1101-1103 Ap '64. (HIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V.Iebedeva. 2. Chlen-korrespondent AN SSSR (for
Dolgoplosk).

YERMAKOVA, I.I.; KHOPACHEVA, Ye.N.; DOLGOPILOV, ~~B.A.~~, akademik; KOL'TSOV,
A.I., akademik; NEL'SON, R.V.

Interaction of 3-methyl-2-pentene with cation-type catalysts.
Dokl. AN SSSR 159 no.4:835-838 D '64 (MIRA 18:1)

2. Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka
im. S.V. Lebedeva.

L 36633-55 EWI(m)/EFF(c)/DIP(j)/1 Pc-4/P-4 RM
ACCESSION NR: AP5001518

S/0020/64/159/005/1069/1071 34
23
12

AUTHOR: Bogomol'nyy, V. Ya.; Dolgoplosk, B. A. (Academician); Chirikova, Z.P.

TITLE: Study of the relative reactivity of 1,3-butadiene, 1-butene, and 2-butene in the cationic polymerization process

SOURCE: AN SSSR. Doklady, v. 159, no. 5, 1964, 1069-1071

TOPIC TAGS: copolymerization, butene, 1,3-butadiene, cationic polymerization

ABSTRACT: In recent years interest has been directed toward the relative reactivity of monomers in ionic and coordination-ionic polymerization processes. Of these the least known are the relative activities of monomers in cationic polymerization. Generally the reactivity of monomers is determined from the values of copolymerization constants. In this work copolymerization was investigated in 1,3-butadiene with 1-butene and 2-butene using C¹⁴ labeled butadiene. This produced more reliable data on the composition of the produced copolymers. Polymerization was conducted in ethyl chloride and toluene solutions. The concentra-

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L 36613-65

ACCESSION NR: AP5001516

tion of monomers comprised 20 mole % and the concentration of $\text{AlC}_2\text{H}_5\text{Cl}_2\text{-H}_2\text{O}$ catalyst was 0.1 mole % relative to the monomer. In some experiments $\text{AlC}_2\text{H}_5\text{Cl}_2\text{-HCl}$ was used as a catalyst. The obtained results may be used for the elucidation of the nature of some secondary reactions which take place during cationic homopolymerization of dienes. Orig. art. has: 2 figures

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of Macromolecular Compounds of the Academy of Sciences, SSSR)

SUBMITTED: 27Jul64

ENCL: 00

SUB CODE: GC, MT

NR REF SOV: 006

OTHER: 001

Card 2/2

ZGOMER, V.N.; TRUBNIKOV, B.A.; NIKOLAYEV, N.I.; ANTONOV, V.A.

Effect of water on the polymerization of butadiene on homogeneous
"cobalt" catalysts. Vysokom. soed. 7 no.2:308-311 P 165.
(MIRA 18:3)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

BABITSKIY, B.D.; DOLGOPLOSK, B.A.; KORMER, V.A.; LOBACH, M.I.; TINYAKOVA, Ye.I.; YAKOVLEV, V.A.

Influence of the nature of halogen atom on the stereospecificity of π -allyl complexes of nickel in butadiene polymerization.
Izv. AN SSSR. Ser. Khim. no.8:1507 '65. (MJRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva i Institut neftekhimicheskogo sinteza im. A.V. Topchiyeva AN SSSR.

L 60140-65 ENT(m)/EPT(c)/ENF(j) Pc-4/Pr-4 HPL JAJ/RM

ACCESSION NR: AP5016512

UR/0190/68/007/006/1085/1091
678.01:54+678.84

AUTHORS: Beylin, S. I.; Polutilo, N. A.; Dolgoplosk, B. A.

TITLE: Study of the reactions of the free methyl radical with organosilicon compounds

SOURCE: Vysokomolekulyarnyye soedineniya, v. 7, no. 6, 1965, 1085-1091

TOPIC TAGS: organosilicon compound, organic chemistry, methyl radical, siloxane compound, polymerization

ABSTRACT: The reactions of the free methyl radical with organosilicon compounds containing different organic groups (methyl, phenyl, vinyl, allyl, and trifluoropropyl) at the silicon atom were investigated. The relative activity of these groups in the reaction of the methyl radical addition and the hydrogen atom abstraction is discussed by means of formulas. Cyclic compounds of the type $(R_1R_2SiO)_4$ were used. The source of free radical was acetyl peroxide decomposing during heating in solution according to $(CH_3COO)_2 \rightarrow 2CH_3 + 2CO_2$. The quantitative evaluation of the two reactions was carried out on the basis of methane yield

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L 60140-65
ACCESSION NR: AP5016512

determination during the decomposition of acetyl peroxide in a $[(CH_3)_2SiO]_4$ solution. The ratio of the velocity constants (k_2/k_1) for both reactions is given by an equation. Tabulated data are given for the reaction of the methyl radical with aromatic silicon compounds at 950. It was found that in siloxane compounds the probability of the addition of methyl radical to the phenyl group at the silicon atom is 5 times as great as the probability of the hydrogen abstraction from CH_3 . The acceptor capability of the phenyl group with respect to the methyl radical in siloxanes is 16 times that of benzene. Tabulated data given for the reaction of the methyl radical with vinyl siloxanes and vinyl silanes at 800 show that vinyl siloxanes are polymerized to a polymer with a molecular weight of 2500. The methane yield increased gradually with decreasing vinyl siloxane concentration. In the reaction of the methyl radical with allyl silanes and allyl siloxanes, the probability of the addition of the methyl radical to the allyl double bond is 33-43 times as great as that of the hydrogen abstraction from the methyl group of the compounds investigated, and only 4 times as great as the probability of the hydrogen removal from the corresponding compounds. α -methylene groups play an important role in the hydrogen abstraction. In vinyl silanes and vinyl siloxanes, the k_2/k_1 ratio is 86 and 140, respectively.

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L 60140-65

ACCESSION NR: AP5016512

2

This shows a higher reactivity of the vinyl groups in the reaction with free radicals as compared with allyl radicals. The reactivity of the double bonds of vinyl and allyl types in siloxanes is much higher than in silanes. In the reaction of the methyl radical with vinyl siloxanes in the presence of organic fluorosilicon compounds, the methane yield is the same as by using octamethylcyclotetrasiloxane as a solvent. The experimental procedure is described, and the experimental apparatus is explained and illustrated. Orig. art. has: 3 figures, 4 tables, and 7 formulas.

ASSOCIATION: Institut neftokhimicheskogo sinteza im. A. V. Topchiyeva, AN SSSR
(Institute of Petrochemical Synthesis, AN SSSR)

SUBMITTED: 04Aug64

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 004

Cont

3/3

57011-65 EWT(α)/ET(α)/BWP(3)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5010/79

UR/0020/65/161/003/0583/0585

AUTHORS: Babitskiy, I. D.; Delgoploak, B. A. (Academician); Kormer, V. A.; Lobach, M. I.; Tiryakova, Ye. I.; Yakovlev, V. A.

TITLE: Stereospecific polymerization of butadiene by catalytic systems based on the π -allyl nickel complexes

SOURCE: AN SSSR. Doklady, v. 161, no. 3, 1965, 583-585

TOPIC TAGS: polymerization, butadiene, stereospecificity, nickel organic compound, catalyst

ABSTRACT: The stereospecific catalytic effect of bis-(π -crotyl) complexes of nickel in the polymerization of butadiene was investigated and compared with the effect of π -allyl-Ni complexes. The catalyst was obtained by treating bis-(π -crotyl)-Ni with Ni-halides in a ratio of 1:2. It was found that the catalyst causes the formation of 1,4 polybutadiene, consisting mainly (up to 95%) of cis-1,4-rings, and that the more effective catalyst form in the presence of $TiCl_4$. The bis-(π -allyl)-nickel-bromide catalyst caused the formation of polymers in which the number of cis-rings is equal to that of trans-rings, with the formation of 1,2-rings being negligible. Addition of metal halides to bis-(π -allyl)-nickel-bromide and to bis-(π -crotyl)-
Card 1/2

1.57011-65

ACCESSION NR: AP5010579

nickel-chloride increased the catalytic activity and altered the stereospecificity. All of the polybutadienes formed contained up to 92% cis-1,4-rings. The structure of the polymer was practically independent of the nature of the metal halide. Orig. art. has: 3 tables and 1 formula.

ASSOCIATION: Vsesoyuzny nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Research Institute for Synthetic Rubber); Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva, Akademii nauk SSSR (Institute for Petrochemical Synthesis, Academy of Sciences, USSR)

SUBMITTED: 30 Nov 64

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 003

Card 2/2

L 52264-45 EIP(c)/EIP(j)/EIP(m)/T -- Pc-h/Pr-h ESD -- RH
 ACCESSION NR: AF5010832 UR/0020/65/161/004/0836/0838

AUTHOR: Babitskiy, B. D.; Golenko, T. G.; Korman, V. A.; Skoblikova, V. I.;
 Tityakova, Ye. I.; Naigaplov, B. A. (Academician)

TITLE: Stereospecific polymerization of butadiene in the presence of catalyst
 systems based on η -cyclopentadienyl complexes of nickel

SOURCE: AN SSSR. Doklady, v. 161, no. 4, 1965, 836-838

TOPIC TAGS: stereospecific polymerization, polymerization, butadiene polymeriza-
 tion, butadiene, pi-complex

ABSTRACT: Polymerization of dienes was studied with catalyst systems composed of η -cyclopentadienyl Ni-complexes and Lewis acids. These systems represent a new group of stereospecific polymerization catalysts as they do not contain compounds with a σ -metal-hydrocarbon bond. Benzene solutions of bis- η -cyclopentadienyl Ni-complex and η -cyclopentadienyl- η -cyclopentenyl Ni-complexes along with metal halides are effective catalysts for polymerization of butadiene. The solutions of Ni-complexes and of metal halides were prepared separately and were mixed together in an argon atmosphere. Polymerization experiments were carried out at 50°C and

Card 1/3

L 52264-65

ACCESSION NR: AP5010H32

the test duration was 17 hours. Butadiene concentration in the total solution was 2.5 mol/l and concentration of metal halides was 5×10^{-3} mol/l. Polymers were precipitated with HCl acidified ethyl alcohol. The yield and molecular weight of the polymers is a function of the type of Lewis acid used and the ratio between individual components of the catalyst system. A $(\pi\text{-C}_5\text{H}_5)_2\text{Ni-TiCl}_4$ catalyst system yielded a polymer containing about 90% cis-1,4 groups, 5 to 10% trans-1,4 groups, and no side vinyl groups. Highest polymer yields were obtained with a Ni:Ti ratio of 1. The polymer molecular weight was not higher than 100,000. The $(\pi\text{-C}_5\text{H}_5)_2\text{Ni-VC}_4$ catalyst system yields polybutadiene containing up to 96% cis-1,4 groups. Maximum catalytic activity results from a Ni:V ratio of 1, the molecular weight of the polymer is 400,000 to 500,000. The catalyst based on tin-, molybdenum-, and tungsten halides yield polymers with 20 to 50% trans-1,4 groups. Depending upon reaction conditions, $(\pi\text{-C}_5\text{H}_5)_2\text{Ni-AlX}_3$ catalysts (where X is Cl or Br) yield polybutadiene of 20,000 to 50,000 molecular weight. Catalysts based on π -cyclopentadienyl- π -cyclopentenyl Ni-complexes perform similarly to bis- π -cyclopentadienyl based systems; both yield polybutadiene containing 92-95% cis-1,4 groups. "The authors are highly indebted to I. G. Kolokoltsava for synthesis of the bis- π -cyclopentadienyl Ni-complex." Orig. art. has: 2 tables.

Card 2/3

L 52264-65

ACCESSION NR: AP5010132

ASSOCIATION: Vsesoyunnyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S. V. Lebedeva (All-Soviet Institute of Synthetic Rubber); Institut
neftekhimicheskogo sinteza, akademii nauk SSSR (Institute of Petrochemical Synthesis,
Academy of Sciences SSSR)

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: OC, MT

NO REF. SOV: 002

OTHER: 002

Card 3/3 7-6

BAGDASAR'YAN, A.Kh.; FROLOV, V.M.; TINYAKOVA, Ye.I.; DOLGOPLOSK, B.A., akademik

Electric conductivity of alkyl lithium solutions in connection with the
polymerization process. Dokl. AN SSSR 162 no.6:1293-1296 Je '65.
(MIRA 18:7)

1. Institut neftekhimicheskogo sinteza im. A.V.Topchiyeva AN SSSR.

L 64482-65 ENT(m)/EFF(c)/ESP(j)/T/AMF(t)/ENL(b) IJF(c) JO/AM/RE

ACCESSION NR: AP5021280

UR/0020/65/103/0000000000

AUTHORS: Vinogradov, P. A., Dolgonosk, B. A. (Academician); Zgonnik, V. I.;
Parengo, B. P.; Tityakova, Ye. I.; Turov, B. I.

TITLE: The role of electron-donor additives, water, and alkylating agents in the stereospecific polymerization of butadiene under the influence of a cobalt catalytic system

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1147-1150

TOPIC TAGS: stereospecific polymerization, polymer, butadiene, cobalt, catalyst

ABSTRACT: The object of the investigation was to enlarge the currently available information concerning the stereospecific catalytic activity of cobalt catalytic systems (B. S. Turov and P. A. Vinogradov i dr., DAN, 155, 874, 1965). The polymer studied was butadiene. The experimental results are shown graphically in Figs. 1 and 2 on the Enclosure. It is concluded that the addition of $AlCl_3$,

$RAICl_2$, Br_2 , H_2O , $CH_2 = CH - CH_2$ halogen, $RCl - Al - O - Al - RCl$ increases the formation of 1,4 cis rings, the molecular weight, and the rate of polymerization, whereas the addition of R_3Al , RSR , ROR , R_3N , KCl , and $NaCl$ decreases the number

Card 1/4

L 64482-65

ACCESSION NR: AP502128)

3

of 1,2 rings, the molecular weight, and the rate of polymerization. Orig. art.
has: 1 table, 3 graphs, and 3 equations.

ASSOCIATION: Institut neftekhimicheskogo sinteza, Akademii nauk SSSR (Institute
for Petrochemical Synthesis, Academy of Sciences SSSR)

SUBMITTED: 15Mar65

ENCL: 02

SUB CODE: 00

NO REF SOV: 007

OTHER: 005

Cord 2/4

1. 64482-65

ACCESSION NR: AP5021280

ENCLOSURE: 01

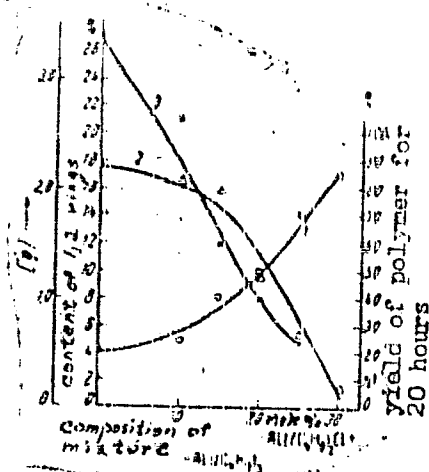


Fig. 1. The effect of triisobutylaluminum on the number of 1,2 units in the chain (1), yield of polymer (2), and characteristic viscosity (3). Concentration of $\text{CoCl}_2 = 0.0096$ m mole, $\text{Al/Co} = 150:1$ (mole), butadiene 12.5 g, concentration of butadiene in benzene 1.8 mole/liter, temperature of polymerization 30°C , duration of experiment 20 hours.

Card 3/4

L 64482-55

ACCESSION NR: AP5021280

ENCLOSURE: 02

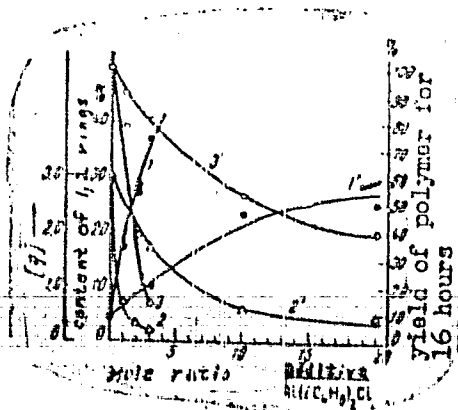


Fig. 2. Effect of KCl and NaCl on the number of 1,2 rings in the chain (1, 1'), viscosity (2, 2') polymer yield (3, 3') - for KCl 1, 2, 3. — for NaCl 1', 2', 3'. Concentration of $\text{CoCl}_2 = 0.0096 \text{ m mole}$, $\text{Al:Co} = 150:1$ (mole), butadiene 12.5 μ , concentration of butadiene in benzene 1.8 mole/liter, temperature of polymerization 5°C , duration of experiment 16 hours.

Card 4/4

L 2684-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5023367

UR/0020/65/164/001/0119/C121

AUTHORS: Sharayev, O. K.; Alferov, A. V.; Tinyakova, Ye. I.; Dolgoplosk, B. A.
(Academician)

TITLE: Transition from metal hydrides to π -allyl complexes and the initiation of the stereospecific polymerization of butadiene

SOURCE: AN SSSR. Doklady, v. 164, no. 1, 1965, 119-121

TOPIC TAGS: polymer, catalysis, metal hydride, polymerization, stereospecificity, butadiene

ABSTRACT: The reaction of nickel hydrides with butadiene was investigated. It was found that nickel hydrides initiate the cis-polymerization (90%) of butadiene through a stage of π -crotyl complex formation. In other reactions the nickel amount passing to benzene solution was 20% of that calculated for unreacted ethyl magnesium bromide. The gaseous products evolved during the decomposition of the crotyl derivatives of nickel were mixtures of butenes (with a predominant amount of α -butene). The total yield of butenes was more than 1 mole per mole of organonickel compound. The stereospecific polymerization of butadiene with the formation of 1,4-polymer was investigated using nickel on kieselguhr and Raney

Card 1/2

L 2684-56

ACCESSION NR: AP5023367

nickel as catalysts (at 32-42C, for 3 hours) and using benzene and heptane as solvents (at 45% by volume butadiene concentration) in the presence of $TiCl_4$, VCl_4 , $AlCl_3$. The tabulated data show that the nature of the metal in the Lewis acid does not affect the microstructure of the polymer chain. The polymerization is effective in both benzene and heptane. Considering the data of nickel transition reacted with butadiene to π -crotyl derivatives, it can be assumed that analogous reactions occur on the surface of nickel catalysts. Orig. art. has: 1 table.

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva, Akademii nauk SSSR (Institute of Petrochemical Synthesis, Academy of Sciences, SSSR)

SUBMITTED: 27Mar65

ENCL: 00

SUB CODE: 00, 00

NO REF SOV: 004

OTHER: 008

L 9822-66 EWT(m)/EWP(j)/T RM

ACC NR: AF5026990

SOURCE CODE: UR/0020/65/164/005/1085/1088

AUTHOR: Fushman, E. A.; Tsvetkova, V. I.; Chirkov, N. M.; Dolgoplosk, B. A.
(Academician)

ORG: IKHFANS

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)

TITLE: Peculiarities of ethylene polymerization catalysis with the use of the systems $(C_5H_5)_2TiCl_2-Et_2AlCl$ and $(C_5H_5)_2TiCl_2-Et_3Al$ in alkyl chlorides media

SOURCE: AN SSSR. Doklady, v. 164, no. 5, 1965, 1085-1088

TOPIC TAGS: ethylene, polymerization catalysis, titanium

ABSTRACT: The use of solvents containing an active Cl atom, such as $(CH_2Cl)_2$, $EtCl$, or CH_2Cl_2 for polymerization of C_2H_4 with the title systems (I) and (II), respectively, results in reactivation of the complexes that become practically inactive during the process. Kinetic curves for polymerization of C_2H_4 in various

1/2

UDC: 542.973-541.6

L 9822-66

ACC NR: AF5026990

3

solvents in the presence of (I) indicate that in C_6H_6 or $PhCl$ the system is deactivated within 1 hour, owing to reduction of $Ti(IV)$ to $Ti(III)$. With (II) this reduction occurs very fast and there is practically no polymer formed. In the same conditions but with alkyl chlorides as solvents, the activity of (I) and (II) remains unchanged for long periods. As a result, the yield of polyethylene is much higher, no significant change of the molecular weight occurs, and the degree of branching remains low. The author thanks Academician A. N. Nesmeyanov for laboratory assistance. Orig. art. has: 4 figures and 2 tables. 44,55

SUB CODE: 07/ SUBM DATE: 25Feb55/

NR REF SOV: 007/ OTHER: 004

2/2

DOLGOPLOSK, B.A., akademik; BABITSKIY, B.D.; KORMER, V.A.; LOBACH, M.I.;
TINYAKOVA, Ye.I.

Link formation mechanism in the stereospecific polymerization
of dienes. Dokl. AN SSSR 164, no.6:1300-1302 0 '65.

(MIRA 18:10)

1. Institut neftekhimicheskogo sinteza AN SSSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut sinteticheskogo kauchuka
im. S.V.Lebodeva.

L 05129-67 EWP(j)/EWT(m) IJP(c) RM

ACC NR: AP6027734

(A)

SOURCE CODE: UR/0020/66/169/004/0832/0834

AUTHOR: Ebitskiy, B. D.; Grachanovskiy, V. A.; Poddubnyy, I. Ya.; Smirnova, I. N.; Dolgoplosk, B. A.

ORG: none

TITLE: Some regularities in the change of the molecular weight distribution of cis-1,4 polybutadienes obtained under the influence of Ziegler-Natta catalysts

SOURCE: AN SSSR. Doklady, v. 169, no. 4, 1966, 832-834

TOPIC TAGS: polybutadiene, catalytic polymerization, molecular weight, titanium compound, organoaluminum compound

ABSTRACT: The complex Ziegler-Natta catalyst $TiI_4 + Al(iso-C_4H_9)_3$ was used to synthesize cis-1,4-polybutadienes. The effect of the degree of conversion of the monomer, concentration of the catalyst $TiI_4 + Al(iso-C_4H_9)_3$ and polymerization temperature on the molecular weight and molecular weight distribution (MWD) of the polymers formed was studied. The MWD was determined from sedimentation rates in a "Phywe" centrifuge. Samples obtained at various stages of polymerization at 25°C showed that independently of the degree of conversion of the monomer, beginning with the smallest experimentally measurable degree of conversion (~15%), the MWD of the polymers does not change, i. e., the process is a steady one. The catalyst and monomer concentrations do not affect the steadiness of the process. The latter is affected, however, by a

Card 1/2

UDC: 66.095.265+678.744

L 05129-67

ACC NR: AP6027734

drop in the polymerization temperature to 15°C, and in this case the molecular weight increases with the degree of conversion. The molecular weight of cis-1,4-polybutadienes increases with the initial concentration of the monomer and with decreasing initial concentration of the catalyst. As the temperature drops, the nature of the change in molecular weight as a function of these two concentrations remains the same. It is concluded that the polymerization of butadiene over $TiI_4 + Al(iso-C_4H_9)_3$ at 15°C and below involves the "live"-chain mechanism, whereas at higher temperatures an increasingly important role is played by chain-limiting reactions. Orig. art. has: 4 figures.

SUB CODE: 07/ SUBM DATE: 13Jan66/ ORIG REF: 004/ OTH REF: 004

na
Card 2/2

L 04202-67 EWT(m)/EWP(j)/I IJP(c) RM SOURCE CODE: UR/0020/66/169/005/1102/1103
ACC NR: AP6030022 (A)

AUTHOR: Oreshkin, I. A.; Chernenko, G. M.; Tinyakova, Ye. I.; Dolgoplosk, B. A.
(Academician) 34 B

ORG: Institute of Petrochemical Synthesis im. A. V. Topcheviy, Academy of Sciences
SSSR (Institut neftekhimicheskogo sinteza Akademii nauk SSSR)

TITLE: π -allyl derivatives of chromium and titanium as catalysts for stereospecific
polymerization of butadiene

SOURCE: AN SSSR. Doklady, v. 169, no. 5, 1966, 1102-1103

TOPIC TAGS: chromium, titanium, polymerization catalyst, polybutadiene

ABSTRACT: Stereospecific polymerization of butadiene was studied at 20-80°C using 2.7 mol/l concentration of butadiene in toluene and 0.2 mol/% (based on butadiene) of chromium and titanium triscrotylates as catalysts. The polymerization duration was 2-68 hr. In some experiments the catalysts were supplemented with NiCl_2 ($\text{MR}_3:\text{NiCl}_2 =$ from 1:8 to 1:24) with TiJ_4 ($\text{MR}_3:\text{TiJ}_4=1:1$), or with O_2 ($\text{MR}_3:\text{O}_2=1:0.5$). The chromium system was prepared by reacting anhydrous CrCl_3 with crotylmagnesiumchloride in an ether toluene mixture (1:2 by volume) at -10° to -20°C. The titanium system was prepared by reacting anhydrous TiCl_3 with biscrotyl magnesium in diethyl ether solvent at -5°C; the ratios of TiCl_3 to R-Mg was from 5:1 to 12:1. The polymer yields varied from 6.1

UDC: 542.952+541.64

1 04202-67

ACC NR: AP6030022

to 100%. It was found that pure $(C_4H_7)_3Cr$ or $(C_4H_7)_3Ti$ yielded a polymer with 81-83% of 1,2-units. The addition of $NiCl_2$ or TiJ_4 to either chromium or titanium triscrotonate was found to result in a polymer with 85-93% of 1,4-cis units. In the presence of O_2 or chromium oxide, the polymer showed 92.5-99% of 1,3-trans units. Orig. art. has: 2 tables.

SUB CODE: 07/

SUBM DATE: 18Jan66/

ORIG REF: 004/

OTH REF: 002

Card 2/2 *LC*

[illegible]

DOIGOPIOSK, K. V., DANILOVITCH, K. V., and KROPATCHEV, V. A.

"Stereospecific syntheses with metals and metal organic compounds,"
a paper presented at the 9th Congress on the Chemistry and Physics of High
polymers, 28 Jan-2 Feb 57, Moscow, Polymer Research Inst.

B-3,084,395

DOLGOPLOSK, N. A.

33502

K Diagnostike Aneurizmy Seriya. Terapevt Arkhiv, 1949, Vyp. 5, c. 62-70. -Bibliogr:
c. 70

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

DOLGOPOLOSK, N. A.

DOLGOPOLOSK, N. A. - "Changes in the Electrocardiogram in Classic and Thoracic Removals in Cardiac Infarctions and Aneurisms of the Heart." Sub 16 Aug 52, Central Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

DOLGOPILOSK, N.A., kandidat meditsinskikh nauk

Diagnosis of infarcts of the right ventricle and of an aneurysm
of the posterior myocardial wall. Terap.arkh. 26 no.1:59-73
Ja-F '54. (MLRA 7:5)

1. Is 2-y terapevticheskoy kliniki (sav. - prof. B.Ye.Votchal)
TsIU i terapevticheskogo otdeleniya bol'nitsy imeni Botkina.

(MYOCARDIAL INFARCT, diagnosis,

*ECG, right ventric infarct)

(HEART, aneurysm,

*diag., ECG, posterior wall aneurysm)

(ANEURYSM,

*heart, posterior wall, diag., ECG)

DOLGOPILOSK, N.A., kandidat meditsinskikh nauk; SHADUR, M.G.

Clinical aspects and therapy of complete persistent transverse
block in adults. Terap.arkh. 27 no.2:48-62 '55. (MLRA 8:7)

1. Iz 2-y terapevticheskoy kliniki (dir.-prof. B.Ye.Votchal) TSEN-
tral'nogo instituta usovershenstvovaniya vrachey i terapevtiche-
skogo otdeleniya bol'nitsy imeni S.P.Botkina.
(HEART BLOCK,
complete persistent transverse block)

DOLGOPOLOSK, M.A.; SHADUR, M.G.

Discussion of S.Kh.Sidorovich's article on, "Clinical and
electrocardiographic dynamics of myocardial infarct." Terap.
arkh.27 no.4.79-81 '55. (MLRA 8:10)

(MYOCARDIAL INFARCT, physiology
clin.aspects & ECG)

(ELECTROCARDIOGRAPHY, in various diseases,
myocardial infarct.)

DOIGOPLOSK, N.A., kand.med.nauk, POLOTSKAYA, Ye.L., kand.med.nauk

The problem of rupture of the ventricular septum after myocardial
infarct. Klin.med. 36 no.8:74-78 Ag '58 (MIRA 11:9)

1. Iz 2-y terapevticheskoy kliniki (dir. - prof. B.Ye. Votchal)
TSentral'nogo instituta usovershenstvovaniya vrachey:
(MYOCARDIAL INFARCT, compl.
rupt. of ventric. septum (Rus))
(CARDIAC SEPTUM, rupt.
ventric., after myocardial infarct (Rus))

AUTHORS: Kasatkina, N. G., Dolgoplosk, S. B. SOV/79-29-2-6/71

TITLE: Structure of the Divinyl Polymer, Obtained in the Presence of an Alfin Catalyst (Stroyeniye divinilovogo polimera, poluchennogo v prisutstvi alfinovogo katalizatora)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 377-380 (USSR)

ABSTRACT: The aim of the present investigation was the investigation of the chemical structure of butadiene-1,3-polymer, obtained in the presence of an alfin catalyst (i.e. a complex of an organometallic combination with another component, such as allyl sodium, sodium chloride, etc). From the polymer, the soluble part was separated from the insoluble part, and each part was subjected to ozonization, oxidation cleavage by acetyl hydrogen peroxide and the splitting up of the acids obtained by the distributing chromatography. The chromatogram of the ozonolysis products of the insoluble polymer part, which was obtained in the presence of the above-mentioned catalyst (Fig 2) (the compact line) differs little from the one of the ozonolysis products of the soluble polymer part (Fig 1). In the latter case, the effect of the carbon skeleton of the polymer is some-

Card 1/2

SOV/79-29-2-6/71

Structure of the Divinyl Polymer, Obtained in the Presence of an Alfin Catalyst

what more intense, but the relative quantities of each acid in the acid mixture of the ozonolysis product remain constant. The table contains the data, after removal of the carbon skeleton in various parts of the macromolecule of the polymer obtained in the presence of the above catalyst. Its structure differs from that of sodium divinyl rubber. The larger percentage of the carbon skeleton of the polymer goes to links 1,4. The percentage of links 1,2 is considerably reduced. In conclusion, it was stated that the divinyl polymer shows 16.2% links of the position 1,2 under above conditions, whereas in the case of divinyl rubber obtained in the presence of metallic sodium, the percentage of the links in the same position attains 70. This polymer has a more simple chain structure, as compared to rubber obtained in the presence of metallic sodium. There are 2 figure, 1 table, and 8 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: December 3, 1957
Card 2/2

KLEBANSKIY, A. L.; FOMINA, L. P.; DOLGOPLOSK, S. B.

Some methods of synthesizing siloxane polymers having phenyl
links in the chain. Zhur. VNIIO 7 no. 5:594-595 '62.
(MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka imeni S. V. Lebedeva.

(Siloxanes)

DOLGOPLOSK, S.B.; KLEBANSKIY, A.I.; POMINA, L.P.; FIKHTENGOL'TS, V.S.;
SHVARTS, Ye.Yu.

Siloxane polymers with phenylene links in the main chain.
Dokl. AN SSSR 150 no.4:813-815 Je '63. (MIFA 16:6)

1. Predstavleno akademikom S.S. Medvedevym.
(Siloxanes) (Polymers)

32662-66 EWT(m)/EWP(j)/T IJP(c) WW/RM
ACC NR: AP6015060 (A) SOURCE CODE: UR/0190/66/008/005/0960/0961

AUTHOR: Goldovskiy, Ye. A.; Kuz'minskiy, A. S.; Gorokhova, T. Ye.; Dolgoplosk, S. B.

ORG: none

TITLE: Effect of the structure of arylenesiloxane polymers on their thermal and thermooxidative stability

SOURCE: Vysokomo kul'yarnyye soyedineniya, v. 8, no. 3, 1966, 960-961

TOPIC TAGS: ~~polymer~~, molecular property, thermal stability, heat resistance, ~~arylenesiloxane polymer~~, polymer structure, MACROMOLECULE, SILOXANE

ABSTRACT: The thermal and thermooxidative stability of high molecular polydimethylsilylenesiloxanes has been investigated. The maximum heat resistance was observed for homopolymers containing diphenylene-oxide. The maximum thermooxidation resistance was observed for the homopolymer containing meta-substituted phenylene groups. [NT]

SUB CODE: 11, 07/ SUBM DATE: 28Dec65/ ORIG REF: 001/ OTH REF: 001

1/1 BLG

UDC: 678.01:54+678.84

KOZLOV, P.V., otv. red.; ANDRIANOV, K.A., red.; DOGADKIN, B.A., red.;
DOLGOPLOSK, V.A., red.; YENIKOLOPYAN, N.S., red.; KARGIN,
V.A., red.; KOLESNIKOV, G.S., red.; KOROTKOV, A.A., red.;
KORSHAK, V.V., red.; LAZURKIN, Yu.S., red.; MEDVEDEV, S.S.,
red.; MIKHAYLOV, N.V., red.; PASYNSKIY, A.G., red.;
SLONIMSKIY, G.L., red.; SMIRNOV, V.S., red.; TSVETKOV, V.N.,
red.; FREYMAN-KRUPENSKIY, D.A., tekhn. red.

[Adhesion of polymers.] Adgeziia polimerov; sbornik statei.
Moskva, Izd-vo AN SSSR, 1963. 142 p. (MIRA 16:10)
(Polymers) (Adhesion)

DOLGOPOL, M.B.

Therapy of freshly inflicted cranial wounds under hospital conditions
(according to data taken from foreign medical literature, 1941-1945).
Voen.-med. zhur. no.10:55-56 O '47. (MIRA 6:11)
(Skull--Wounds and injuries)

DOLGOPOLOV, A.F.; PANICH, B.I.; MINEVICH, V.Ya.

Surface quality improvement of a top cast semikilled steel
ingot. Sber.trud. UNIIM no.11:104-108 '65.

(MIRA 18:11)

DOLGOPOLOV, D. G.

Dolgopolov, D. G. -- "Certain Questions on the Hydrodynamics of Helium II." Min
Higher Education USSR, Khar'kov State Order of Labor Red Banner U imeni A. M. Gor'kiy,
Khar'kov, 1955 (Dessertation for the Degree of Candidate in Physicomathematical Sciences)

SO: Knizhnaya Letopis', No 24, 11 June 1955, Moscow, Pages 91-104.

ДОЛГОПОЛОВ, Г. Д.

Dist. 4843

Investigation of Diffusion in Liquids by the method of saturation from the vapor phase. N. S. Rykova, D. G. Dolgoplov, and V. G. Zhurav. (Institute of Physical Chemistry, USSR Academy of Sciences, Moscow). Priroda, 1950, No. 10, p. 1000. Described are the theory and the method of exp. data of diffusion of condensed vapor in liquid-phase systems with limited initial sol. and arbitrary vapor pressure of the coexisting liquid. The vapor pressure p of the component undergoing the diffusion process, and the p of the liquid soln. during the diffusion at const. temp. are measured. This diffusion coeff. is derived on the basis of Henry's law. In eqn. p and w are const. and independent of time at const. temp. Tests of the system described agreed with the theory. H. Rykova.

Khar'kov

DOL GOPOLOV, D.G.

B-6

USSR/ Physical Chemistry _ Liquids and amorphous bodies. Gases

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11069

Author : Bagrov M.N., Verkin B.I., Dolgoplov D.G.

Title : Determination of Diffusion Coefficient in Liquid by the Method of Saturation from Gaseous Phase

Orig Pub : Zh. fiz. khimii, 1956, 30, No 2, 476-478

Abstract : Description of the method of determining diffusion coefficient in liquid by saturating it with vapor of another substance. There are proposed the formulas:

$$\Delta Q/Q = c_0 (m/M) \left[1 - \frac{q}{\pi^2} \exp(-\pi^2 D t / l^2) \right] \quad (1)$$

$$\Delta Q/Q = 4c_0 (m/M) \left\{ \frac{1}{\pi} \sqrt{\pi D t / l^2} \left[\frac{1}{2} - \frac{1}{4} \left(\frac{l^2}{D t} \right) + \frac{1}{8} \left(\frac{l^4}{D^2 t^2} \right) \right] \right\} \quad (2)$$

wherein $\Delta Q/Q$ is the relative increase in weight of the liquid as a result of diffusion, D --diffusion coefficient, c_0 --concentration of the saturated solution of vapor in liquid, l --depth of the liquid layer, M and m --mass of the atoms of solvent and solute, t --time. Formula (1) relates to the instance $\pi D t > l^2$ (long duration of experiment or shallow depth of liquid layer), formula (2) to the instance $\pi D t < l^2$. The method consists in plotting the experimental curve $\Delta Q/Q = f(1/l)$, determining the tangent

Card 1/2

Do L G G P o L o v, D. G.

AUTHORS: Bogoyavlenskiy, I.V., Grigor'yev, V.N., Rudenko, N.S., 56-3-5/59
Dolgoplov, D.G.

TITLE: Modification of the Mercury Isotope Composition in the Electric Field of a Constant Current. (Izmeneniye izotopicheskogo sostava rtuti v elektricheskoi pole postoyannogo toka)

PERIODICAL: Zhurnal Eksperiment. i Teoret. Fiziki, 1957, Vol. 33, Nr 3, pp. 581-587 (USSR)

ABSTRACT: In a capillary the dependence in the isotopic composition of liquid Hg on the time needed for the passage of a constant current at $41 \pm 2^\circ\text{C}$ and $-10 \pm 3^\circ\text{C}$ is investigated. The time of current passage varied from a minimum of 340 h to a maximum of 1800 h. Further, the concentration of isotopes along the electric field and the dependence of isotope composition at the cathode upon the amounts of the applied voltage were investigated. The following was found for the ion mobility $\Delta\mu/\mu$:

T in $^\circ\text{C}$	$\Delta\mu/\mu$	($B = \Delta\mu/\mu \cdot m/\Delta m$)
45	$1,1 \cdot 10^{-3}$	$0,73 \cdot 10^{-1}$
115	$1,3 \cdot 10^{-3}$	$0,86 \cdot 10^{-1}$

There are 5 figures, 1 table and 4 Slavic references.

Card 1/2

Modification of the Mercury ¹isotope Composition in the Electric Field 56-3-5/59
of a Constant Current.

ASSOCIATION: Physical-Technical Institute AN of the Ukrainian SSR (Fiziko-tekhnich-
eskiy institut Akademii nauk Ukrainskoy SSR)

SUBMITTED: March 13, 1957

AVAILABLE: Library of Congress.

Card 2/2

S/124/60/000/004/015/027
A005/A001

Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 4, p. 68, # 4679

AUTHOR: Dolgoplov, D. G.

TITLE: The Equations of Helium-II-Hydrodynamics²¹ (The Second Approximation)

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1958, Vol. 98, Tr. fiz. otd. fiz.-matem. fak., Vol. 7, pp. 15-27

TEXT: A method for the approximate solution of the kinetic equation for elementary excitations is developed. The existence of a solution for each approximation is proved. Linear terms of the second approximation are obtained in all equations of Helium-II-hydrodynamics, and the symmetry relations for these coefficients are established without subsidiary assumption as to the nature of interaction of elementary excitations. ✓B

Summary

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

SOV/58-59-8-17735

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 108 (USSR)

AUTHORS: Dolgopolov, D.G., Manzheley, V.G.

TITLE: The Determination of the Coefficient of Diffusion in Liquids by Means of the Volatile-Component Method

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1958, Vol 98, Tr. Fiz. otd. fiz.-matem. fak., pp 365-367

ABSTRACT: A method is proposed for measuring the coefficient of diffusion D in liquids during the evaporation of a dissolved substance. By means of this method, the D of benzene at 17.5°C in octoil (2.5% of benzene) was computed. Its value proved to be equal to $0.75 \cdot 10^{-6} \text{ cm}^2/\text{sec.}$, which agrees with an accuracy of about 3% with the D previously obtained by means of another method (RZhFiz, 1957, Nr 8, 19637). Since the convection which arises upon a variation in the density of the solution influences the accuracy of the measurement of D , a condition was found under which convection will be absent:

$$l^3 \delta g \Delta C / \gamma D \leq 1100,$$

Card 1/2 where l is the height of the convection region, ΔC is the difference

SOV/58-59-8-17735

The Determination of the Coefficient of Diffusion in Liquids by Means of the Volatile-Component Method

in concentration, and ν is the viscosity. The proposed method for measuring D entails the danger that the solution may begin to boil. In the opinion of the authors, this danger can be avoided in the case of an arbitrary difference in pressures by admitting into the apparatus a vapor or gas which does not dissolve in the system under consideration, so that the total vapor pressure exceeds the pressure of the saturated vapor of the solution.

L.P. Kholpanov

Card 2/2

DOLGOPOLOV, D.G. [Dolhopolov, D.H.]; BAGROV, N.N. [Bahrov, M.M.]

Measuring the diffusion coefficient in liquids by the method of saturation from the gaseous phase. Ukr. fiz. zhur. 6 no.4: 490-496 J1-Ag '61. (MIRA 14:9)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo i Fiziko-tekhnicheskiy institut nizkikh temperatur AN USSR, g. Khar'kov.

(Diffusion)

DOLGOPOLOV, D.G.

Diffusion coefficients in polycrystals. Fiz. met. i metalloved.
13 no.2:209-213 F '62. (MIRA 15:3)

1. Fiziko-tekhnicheskiy institut niskikh temperatur AN USSR.
(Metal crystals) (Diffusion)

ACCESSION NR: AP4019225

S/0056/64/046/002/0593/0597

AUTHORS: Dolgoplov, D. G.; By*strik, P. S.

TITLE: Effect of electron diamagnetism on the nuclear magnetic resonance frequencies in metals

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 593-597

TOPIC TAGS: electron diamagnetism, nuclear magnetic resonance, nuclear magnetic resonance frequency, Knight shift, Knight shift oscillation, Knight shift amplitude, Knight shift oscillation period, Fermi surface

ABSTRACT: The diamagnetic contribution to the Knight shift is calculated in the quasiparticle approximation for an arbitrary dispersion law. The electron rotational energy in the magnetic field is assumed much smaller than the chemical potential. An oscillatory dependence of the diamagnetic part of the Knight shift on the mag-

Card 1/2

ACCESSION NR: AP4019225

netic field is obtained, with the oscillation amplitude proportional to the square root of the magnetic field. For magnetic fields on the order of 10^4 Oe the oscillating part of the Knight shift is approximately one thousandth of the nonoscillating part. The non-oscillating diamagnetic part of the Knight shift vanishes for a quadratic dispersion law. An experimental determination of the period and amplitude of the oscillations yields the form of the limiting Fermi surface, as in the case of the deHaas-vanAlphen effect. "In conclusion we are grateful to M. Ya. Azbel' for a useful discussion of the present work." Orig. art. has: 12 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR, (Physicotechnical Institute of Low Temperatures, AN UkrSSR)

SUBMITTED: 24Jun63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 001

OTHER: 007

Card 2/2

DOLGOPOLOV, D.G.

Effect of impurities on oscillation of the Knight shift, Fiz.met.
i metalloved. 18 no.5:786-788 N '64.

(MIRA 18 4

1. Fiziko-tehnicheskly institut nizkikh temperatur AN UkrSSR.

KRUFSEIY, I.N.; DOLGOPOLOV, D.G.; MANZHELIY, V.G.; KOLCHENKOVA, I.A.

Determining the heat conductivity of paraffin at low temperatures.
Inzh.-fiz. zhur. 8 no.1:11-15 Ja '65. (MIRA 18:3)

1. Fiziko-tekhnicheskiiy institut nizkikh temperature AN UkrSSR,
Khar'kov.

L 22905-66 EWT(d)/EWT(1)/EPF(n)-2 IJP(c) WW/GG

ACC NR: AP6006865

SOURCE CODE: UR/0181/66/008/002/0601/0602

AUTHOR: Dolgopolev, D. G.; Zhogolev, D. A.

ORG: Physicotechnical Institute of Low Temperatures, AN UkrSSR, Khar'kov (Fiziko-
tekhnicheskii institut nizkikh temperatur AN UkrSSR)

TITLE: Temperature dependence of the moments of EPR lines

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 601-602

TOPIC TAGS: epr, epr spectrum, temperature dependence, dipole interaction, electron spin, crystal lattice, line broadening, resonance line, nuclear magnetic resonance

ABSTRACT: The authors present formulas for the moments of the principal resonance line, relative to the Larmor frequency ω_0 , which are valid in a wider temperature range than previously published. The formulas are limited to the case of dipole interaction of identical spins in a rigid lattice. Formulas for the temperature dependence of the moments are also given. At high temperatures ($\alpha \ll 1$, where $\alpha = \gamma \hbar H_0 / kT$, other symbols standard) the first moment is linear in α in first approximation, and the second moment coincides in zeroth order in α with the expression given by Van Vleck (Phys. Rev. v. 74, 1168, 1948). The results show that the

Card 1/2

L 22905-66

ACC NR: AP6006865

dipole interaction of the spins brings about not only broadening, but a shift of the resonance line, which decreases with increasing temperature and is linear in α at high temperatures, approaching a certain finite value at low temperatures. The width of the resonance line increases exponentially at low temperatures and reaches saturation at high temperatures. It is noted in conclusion that the first moment differs noticeably from zero in anisotropic crystals or very thin films. The temperatures at which these effects come into play are determined by the condition $\alpha \approx 1$, and are 10K for EPR and ≈ 0.01 K for NMR. Orig. art. has: 4 formulas.

SUB CODE: 20/ SUBM DATE: 21May65/ (ORI) REF: 001/ OTH REF: 002

Card 2/2 BLG

ACC NR: AP7005750

SOURCE CODE: UR/0126/67/023/001/0023/0027

AUTHOR: Dolgoplov, D. G.; Zhogolev, D. A.

ORG: Physico-Technical Institute of Low Temperatures, AN UkrSSR (Fiziko-Tekhnicheskii institut nizkikh temperatur AN UkrSSR)

TITLE: Isotopic differences in the Knight shift

SOURCE: Fizika metallov i metallovedeniye, v. 23, no. 1, 1967, 23-27

TOPIC TAGS: The difference in Knight shifts for two isotopes of the same metal is estimated as a function of the following factors: a) difference in lattice constants; b) electron-phonon interaction; c) difference in magnetic moments of the nuclei. The change in the Knight shift due to changes in the lattice constant is determined from the premise that the Knight shift is roughly proportional to the paramagnetic susceptibility of electron gas. The effect of electron-phonon interaction is considered with the aid of methods of the quantum field theory. And the effect of differing magnetic moments of the nuclei of the isotopes is considered from the standpoint of their influence on the magnetic interaction between the electron and the nucleus. It is shown that the relative differences in the lattice constants and nuclear magnetic moments of the isotopes are extremely small. As for the effect of electron-phonon interaction on the

Cord - 1/2

UFG. 520 200.520 01

ACC NR: AP7005750

relative Knight shift k , the available experimental and theoretical findings show that for rubidium (isotopes Rb^{85} and Rb^{87}) $k^{85}/k^{87} - 1 = 0.38 \pm 0.03\%$, i.e. Δk is negative; for the lithium isotopes Li^6 and Li^7 we have $k^6/k^7 - 1$, i.e. again $\Delta k < 0$. The observed negativeness of Δk gives reason to believe that the experimentally recorded isotopic differences in the Knight shift for two isotopes of the same metal are chiefly conditioned by phonon-electron interaction. "The authors are indebted to I. O. Kulik for his interest in and valuable discussion of this project." Orig. art. has: 11 formulas.

SUB CODE: 07, 20 SUBM DATE: 11May66/ ORIG REF: 006/ OTH REF: 006

Card 2/2

LEN'KOV, V.I., kand. veterin. nauk; LEN'KOVA, V.A., kand. veterin. nauk;
DOLGOPOLOV, D.P., mladshiy nauchnyy sotrudnik

Anatoxin vaccine for the prophylaxis of infectious enterotoxemia
in sheep. Veterinariia 38 no.3:44-45 Apr '61 (MIF 18:1)

1. Yuzhno-Kazakhstanskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

L 14974-66 EWT(1)/EWA(h) GW
ACC NR: AP6003332

SOURCE CODE: UR/0387/66/000/001/0003/0012

AUTHOR: Dolgoplov, D. V.; Budennyi, A. P. 29
8

ORG: Institute of Physics of the Earth im. O. Yu. Shmidt, Academy of Sciences SSSR
(Institut fiziki Zemli Akademii nauk SSSR)

TITLE: Solving the inverse problem of seismometry 12,4,55

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 1, 1966, 3-12

TOPIC TAGS: seismography, mathematic analysis

ABSTRACT: The authors solve the inverse problem of seismometry for galvanometric recording, i.e. to determine each of the three components which make up the vector for true motion of the ground from the respective recordings on three seismograms. This problem reduces to finding the unknown function for forced motion of the ground from the known function graphically represented by the seismogram. The operator method is used for solving the problem (Mikusinskiy, Ya., "Operator Calculus," IL., Moscow, 1956). This method gives a comparatively simple means for dealing with difficulties caused by unknown initial conditions in the oscillations of the ground and

Card 1/2

UDC: 550.340.1

L 14974-66

ACC NR: AP6003332

by the large errors which arise during integration of the differential equation of forced motion for the recording system. Formulas are derived which give an approximate solution for the problem and are applicable for programming on a computer. Orig. art. has: 3 figures, 48 formulas.

SUB CODE: 08/ SUBM DATE: 04May64/ ORIG REF: 004/ OTH REF: 001

Card 2/2 vmt

DOLGOPOLOV, F.F., inzh.; STOLBUN, M.I., inzh.; FESENKO, V.I., inzh.

Automatic loading devices for skip units. Mekh. i avtom. proizv.
19 no.4:15-16 Ap '65. (MIRA 18:6)

DOLOGOPOLOV, G.L., inzh.

Elements for stabilizing the slopes of earthen reclamation
structures. Trudy Giprovdokhoza, no.22:116-136 '63.
(MIRA 17:8)

DOLGOPOLOV, G.V.; KAZANSKIY, N.N.; KRYUCHKOV, V.G.; MAYERGOYZ, I.H.;
MINTS, A.A.; KAZAREVSKIY, O.R.; PETRYAYEVA, D.A.; POMSHISHEVSKIY,
V.V.; PRIVALOVSKAYA, G.A.; PULYARKIN, V.A.; RYAZANTSEV, S.R.;
FREYKIN, Z.G.; KHOREV, B.S.

Gennadii Petrovich Matveev; obituary. Izv. AN SSSR. Ser.geog.
no.6:144-145 N-D '62. (MIRA 15:12)
(Matveev, Gennadii Petrovich, 1926-1962)

L 23828-66 EWT(m)/EWP(j) WW/RM

ACC NR: AP6009565

SOURCE CODE: UR/0236/65/000/003/0095/0101

AUTHOR: Dolgopolskiy, I. M. -- Dolgopolskis, J.; Vayshtarene, K. V. -- Vaistariene, K.; Kryauchynas, I. I. -- Kriauciumas, J. 29

ORG: Institute of Chemistry and Chemical Engineering, Academy of Sciences, Lithuanian SSR (Institut khimii i khimicheskoy tekhnologii Akademii nauk Litovskoy SSR) 13

TITLE: Synthesis of vinyl fluoride⁷ using a suspended catalyst

SOURCE: AN LitSSR. Trudy, Seriya B. Fiziko-matematicheskiye, khimicheskkiye, geologicheskkiye i tekhnicheskkiye nauki, no. 3, 1965, 95-101

TOPIC TAGS: vinyl fluoride, acetylene, hydrogen fluoride

ABSTRACT: The reaction of hydrofluorination⁷ of acetylene in the presence of a suspended catalyst (suspension of mercuric oxide in vaseline oil) was investigated because the same reaction on a solid catalyst has many disadvantages. It was found possible to carry out a continuous and regular feeding of hydrogen fluoride by isothermally evaporating its mixture with acetylene; one liter of acetylene at 0°C carries off 2.98 g of hydrogen fluoride, i. e., the acetylene/HF ratio is 1:3.48. The conditions of vinyl fluoride synthesis were determined: the degree of conversion of acetylene and the reproducibility of the yield per unit weight of the catalyst reach their maximum at 50°C, at a 15% HgO concentration, and an acetylene feed rate of 6 l/hr. The

Card 1/2

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L 23828-66

ACC NR: AP6009565

consumption of acetylene on the formation of 1,1-difluorethane, a by-product of the reaction, was found to decrease as the temperature rose from 30° to 70°C. This is due to a decrease in the solubility of the reacting components, i. e., vinyl fluoride and hydrogen fluoride and also acetylene, in the liquid phase of the catalytic mixture. Orig. art. has: 5 tables.

SUB CODE: 07/

SUBM DATE: 20Feb65/

ORIG REF: 004/

OTH REF: 007

Cord 2/2 *RV*

531.5:591.04(264) 4
1-4542

7. Arctic [In the order of the Arctic.] Photography by I.A. Riunkina. Text by I. V. Dolgopolar. Ed. by Vasilii Fedorovich Burkhanov. Moscow, Izdat. Pravda, 1955. 11 p. 14x24 cm. Mostly photos (mostly color) with text. DLC—A large colored album for popular use (40,000 copies) vividly depicting life and activities on the Soviet drifting station SP-3 (Serebryi Polius) which drifted across the pole from April 9, 1954 to March 23, 1955. A map of the Central Arctic shows limits of the ice pack, the routes of the "Fram," "Sečov," "Isannek," SP-1 (1937-8), SP-2 (1953-4), SP-3 and SP-4 (April 1954-March 1955). The scenes of excellent photos show many meteorological and oceanographic observations, activities in winter (dark) and summer (daylight), and the meteorologists and hydrologists who were in charge or assisted in these observations. Reading thermometers, following balloons with theodolites, 50 kg and 100 kg radiosondes and lowering bathythermographs into the ocean through the ice are among the events shown. Text describes Soviet Arctic expeditions to 1955. Subject headings: 1. Arctic expeditions. 2. Soviet drifting expedition SP-3. 3. Arctic observations. 4. Soviet meteorologists. 5. Arctic. I. Riunkina, I.A. II. Burkhanov, Vasilii F. (ed.). III. Dolgopolar, I. V. --M.R.

EE
MT

The exchange of glycerol by xylene in the production of modified hard resins, R. E. Humphreys and K. J. Holmberg, *Industrial and Engineering Chemistry, Analytical Edition*, Vol. 47, No. 1, p. 107 (1955).
In the production of a glass resin, glycerol may be replaced by xylene, a product of wood distillation. Glycerol resin with xylene, modified by castor oil, is used in finishing leather. The best results of casting oil to xylene is 1:1.4-2:1. The optimum modification is temp. is 240-260°. L. M.

100

DOIGOPOLOV, K. V.

PA 1967/1

USSR/Geophysics - Book Review

Mar/Apr 51

"Discussion of Book by I. I. Ivanov-Oskly 'Historical Materialism Concerning the Role of Geographical Surroundings in the Development of Society' (At a Session of the Learned Council of Geographic Institute, Academy of Sciences USSR, May 1951)," K. V. Dolgoplov

"Is At Nauk, Ser Geog" No 2, pp 88-95

Book was critically studied by several experts. Prof I. Ya. Ziman noted the usefulness of subject book, facilitating the fight against hostile bourgeois theories. Nevertheless some deficiencies were discussed, e.g., author states that mine production

1967/1

USSR/Geophysics - Book Review (Contd)

Mar/Apr 51

depends on ore availability, which statement contradicts Stalin's theory, etc. Various members of Geog Inst (Docent A. E. Timashov, Prof V. I. Lavrov, B. I. Armand, M. M. Zhitomirskiy, M. I. Ponus, N. P. Yanitskiy, Acad A. A. Grigor'ev) continued the discussion in standard vein.

1967/1

DOLGOPOLOV, K.V.

Results of the economic districting of Stalingrad Province in connection with
the construction of the Stalingrad Hydroelectric Power Station. Izv. AN SSSR
Ser.geog. no.6:49-56 X-D '53. (MIRA 6:12)

1. Institut geografii Akademii nauk SSSR.
(Stalingrad Hydroelectric Power Station) (Stalingrad Province--Economic
conditions)

Dolgoplov, Konstantin Vasil'yevich
TYUNIN, Sokrat Nikolayevich; DOLGOPLOV, Konstantin Vasil'yevich;
LAVRENT'YENVA, Ye.V., redaktor; RIVINA, I.N., tekhnicheskij
redaktor

Voronesh. Moskva, Gos. izd-vo geogr. lit-ry, 1954. 55 p.
(Voronesh--Description) (MLRA 8:1)

USSR/Scientists - Economic geography

Card 1/1

Pub. 15 - 11/15

Authors

: Alampiev, F. M.; Belyayev, A. I.; Buyanovskiy, M. S.; Grechka, F. V.;
Dolgoplov, K. V.; Znamenskiy, M. A.; and Fedorova, E. F.

Title

: Vladimir Ivanovich Lavrov

Periodical

: Izv. AN SSSR. Ser. geog. 5, 86 - 87, Sep - Oct 1954

Abstract

: In noting the death of Vladimir Ivanovich Lavrov (1886 - 1954), the life history and work of this outstanding teacher of economic geography is recalled. Lavrov did some research work but he is most noted for his training of young teachers and for his lectures.

Institution:

Submitted:

DOLGOPOLOV, K. V.

USSR/ Scientists - Economic geography

Card 1/1 Pub. 45 - 12/15

Authors : Buyanovskiy, M. S.; Dolgopolov, K. V.; Dmitrashko, N. V.; Kamanin, L.G.;
Kravchenko, D. V.; Meyerson, E. I.; Odud, A. L.; Pomus, M. I.; Rostovtsev,
M. I.; Ryazantsev, S. N.; Fedorova, Ye. F.; and others

Title : Pavel Georgiyevich Ozhevskiy

Periodical : Izv. AN SSSR. Ser. geog. 5. 88 - 89, Sep - Oct 1954

Abstract : In noting the recent death of Pavel Georgiyevich Ozhevskiy the life history
and work of this specialist in economic geography is recalled. Ozhevskiy
was the oldest collaborator of the Geographic Institute of the Academy of
Sciences of the USSR. He devoted himself mostly to the economic aspects of
geography.

Institution:

Submitted:

Dolgopolev, K. V.

ALEKSANDROVA-ZACHSKAYA, V.V.; ARNOL'D, V.S.; ADAMCHUK, V.A.; BARANSKIY,
N.N.; BARDIN, I.P.; VASYUTIN, V.F.; VITYAZEVA, V.A.; GORDONOV,
L.Sh.; DOGGOPOLOV, K.Y.; ZENKOVA, Z.A.; NEMCHINOV, V.S.; OBRU-
CHEV, V.V.; RYAZANTSEV, S.N.; SOKOLOV, A.V.; STEPANOV, P.N.;
CHERDANTSEV, G.N.

A.M. Volkov; obituary. Inv. AN SSSR Ser.geog. no.6:106-107 N-D '54.
(Volkov, Aleksandr Mikhailovich, 1890-1954) (MIRA 8:3)